

INCH-POUND

MIL-DTL-23971/4A
23 April 2002
SUPERSEDING
MIL-P-23971/4
2 December 1977

DETAIL SPECIFICATION SHEET

POWER DIVIDER, 3 PORT QUADRATURE, SOLDER TERMINALS

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the power divider described herein shall consist of this specification sheet and MIL-DTL-23971.

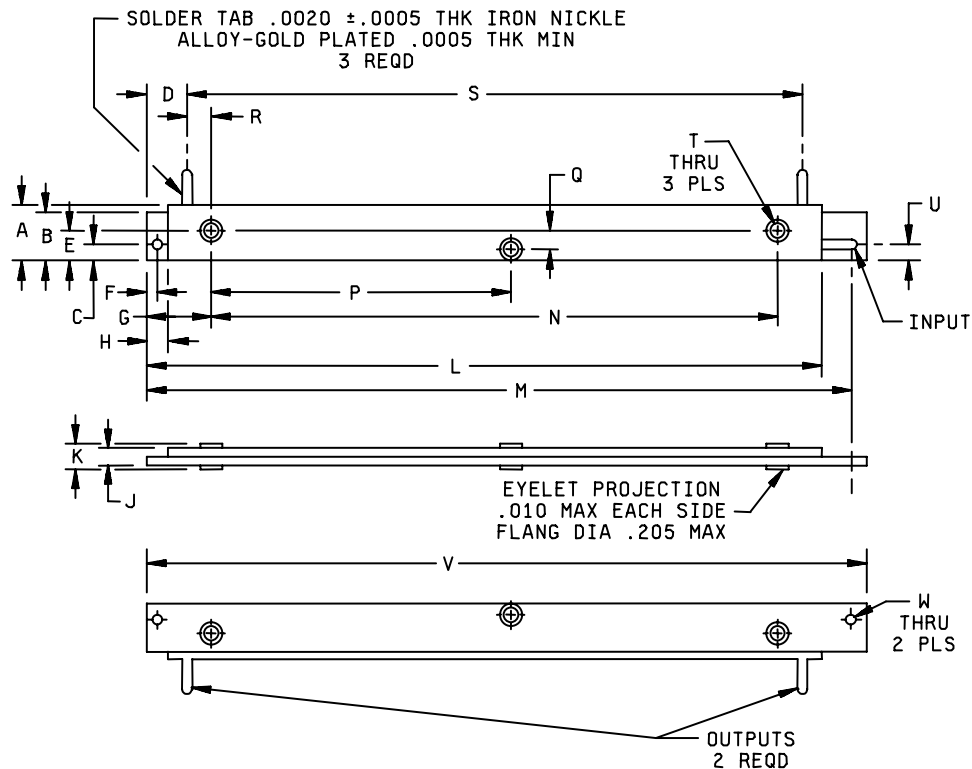


FIGURE 1. Dimensions and configuration.

	Dimensions			
	Inches		Millimeters	
	Max	Min	Max	Min
A	.345	N/A	8.76	N/A
B	.32	.28	8.1	7.1
C	.110	.090	2.79	2.29
D	.27	.23	6.9	5.8
E	.205	.165	5.21	4.19
F	.085	.045	2.16	1.14
G	.42	.38	10.7	9.7
H	.140	.120	3.56	3.05
J	.110	N/A	2.79	N/A
K	.140	N/A	3.56	N/A
L	4.22	4.18	107	106
M	4.40	4.36	112	111
N	3.535	3.515	89.79	89.28
P	1.885	1.845	47.88	46.86
Q	.080	.060	2.03	1.52
R	.160	.140	4.06	3.56
S	3.835	3.815	97.41	96.90
T	.105 dia	.093 dia	2.67 dia	2.36 dia
U	.110	.090	2.79	2.29
V	4.50	4.46	114	113
W	.067	.057	1.70	1.45

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are ± 0.010 (.25 mm) for three place decimals and ± 0.02 (.5 mm) for two place decimals.

FIGURE 1. Dimensions and configuration - Continued.

REQUIREMENTS:

Design and construction: See figure 1.

Terminals: Solder leads.

Material: Copper or Iron-nickel alloy in accordance with SAE-AMS-I-23011, "Iron-Nickel Alloys for Sealing to Glasses and Ceramics", (KOVAR). Nickel is to be used only if specification cannot be met using alternate material means.

Finish: Tin plated per ASTM-B545, "Standard Specification for Electrodeposited Coatings of Tin", type 1, 0.0005 inch thick minimum, dull finish or gold-plated in accordance with SAE-AMS-2422 "Plating, Gold, Electronic and Electrical Applications" and/or ASTM-B488 "Gold for Engineering Uses, Electrodeposited Coatings of".

Ambient temperature:

Operating -54° to +110°C.

Storage -62° to +125°C.

Electrical performance characteristics:

Impedance: 50 ohms.

Frequency range: 225 to 400 GHz.

Coupling. 3 dB +.2, -0.

VSWR: 1.2:1 maximum.

Insertion loss: 0.25 dB maximum.

Isolation: 20 dB minimum.

Phase balance: 90° ±1.5°.

Amplitude balance. 0.4 dB.

Power level: 100 W average, 200 W peak.

Part number: M23971/4-01.

Custodians:

Army - CR

Navy - EC

Air Force - 11

DLA - CC

Preparing activity:

DLA - CC

(Project 5985-1227-04)

Review activities:

Navy - AS, MC, OS